

# Paulo Costa

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<https://github.com/paulo-raca>

## 1 Professional Experience

- **Geofusion**, Software Engineer - since April/2015

My work consists on the development of the Java backend and Web frontend of Onmaps, a tool for analysis and visualization of geospatial data, used mostly as marketing tool (Geomarketing).

- **Facebook**, Software Engineer - October/2012 to September/2014

I've worked on the project responsible for managing all of Facebook's servers and other datacenter devices, and which acts as an intermediary between several automation tools, such as: Provisioning, application deployment, repairs, financial systems, data replication, monitoring, etc.

This project is written in Java and communicates with other applications through Thrift APIs. I also contributed with several client applications, usually written in Python, PHP or C++.

- **Veridis Tecnologia**, Software Engineer - September/2009 to October/2012

Veridis develops solutions for biometric access control (Fingerprints in special). I was responsible for developing the library for capture and matching Fingerprints (Based on NBIS) and the firmware for a embedded system that controls biometric doors and turnstiles.

Most Development was done in C++, but all libraries have APIs and samples in Java and C#.

- **Griaule Biometrics**, Software Engineer - May/2006 to September/2009

Griaule sells a software library for capture and matching of fingerprints. I was responsible with supporting several fingerprint scanners, Linux support, modularization and other improvements.

Most development was done in C++, but there are bindings and examples for Java, Delphi, C# and VB.

- **CPqD - Research and Development Center in Telecommunications**, Intern - December/2005 to February/2006

As an intern, my job consisted in fixing known bugs, writing JUnit tests and add new features to existing reusable components.

All components are written in Java and typically use Hibernate, EJB e Struts.

## 2 Education

- **Computer Engineering** - IC/Unicamp - March/2006 to December/2010.

Study Certificates:

- Visual Computing
- Project of Dedicated Hardware Systems
- Software Engineering
- Project of Information Systems

Grade Point Average: 7.7 (0-10)

- **Technician in Eletronics** - Cotuca/Unicamp - February/2007 to December/2010

- **Technician in Informatics** - Cotuca/Unicamp - February/2003 to December/2006

Emphasis in Support Systems

## 3 Languages

- **English** - Advanced Level.

109/120 points on TOEFL iBT (November/2008).

- **Portuguese** - Native Speaker.

## 4 A few Projects

- **MongoFS** - FUSE filesystem to manage documents in Mongo databases.
- **Contour Curves for Highcharts** - Plugin to the popular Highcharts library to plot 2-D and 3-D contour curves.
- **Experimental Design** - Web interface to easily plan and analyze experiments using DOE methodologies. Made with Python/webapp2 and javascript.
- **charlcd-gpio e ttyWiegand** - Linux kernel modules for driving HD44780-compatible character LCDs and to receive data from Wiegand devices through GPIO pins.
- **JIPS** - Java Virtual Machine, able to run any class file. Has partial support for JNI, no Garbage collection. Made with C++/Arch-C.
- **Space Wars** - StarWars-like 3-D space battle game. Made with Java, OpenGL, OpenAL and JInput.
- **Mini-MIPS** - MIPS-like multi-cycle microprocessor. Implemented from behavioral VHDL to physical layout. Made with GHDL, Cadence Encounter and Cadence Virtuoso.
- **Rabiscomatic** - Plotter assembled from old printers and a ARM microcontroller. Firmware and computer software written in C. USB interface.
- **Calculatrix** - Plots math functions in 2 or 3 dimensions. Made with Java and OpenGL.
- **3D Wohoo** - Libraries for drawing 2-D and 3-D computer graphics, built from the scratch. Versions for Turbo Pascal, Delphi and Java.

## 5 Programming Contests

- **ICPC – International Collegiate Programming Contest - World Finals**
  - 2008 - Honorable mention - Team GAP/Unicamp
- **ICPC – International Collegiate Programming Contest - Brazilian Finals**
  - 2007 (4<sup>th</sup> position - Team GAP/Unicamp), 2010 (8<sup>th</sup> position - Team Unicamp Alfa)
- **IOI - International Olympiads in Informatics**
  - 2006 - 122<sup>nd</sup> position (Bronze)
- **CIIC - Ibero-american Contest in Informatics)**
  - 2004 (Silver), 2006 (Silver)
- **OBI – Brazilian Olympiads in Informatics**
  - 2003 (Silver), 2004 (Golden), 2005 (Bronze), 2006 (Golden)
  - 2010 and 2011 - Worked on the programming courses.
- **Google Code Jam Latin America**
  - 2007 – 80<sup>th</sup> position